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I. PROJECT INTRODUCTION | Story County**Application for CUP and Variance**

Story County Wind, LLC (“*Story Wind*”), a Delaware limited liability company, which is indirectly wholly owned by NextEra Energy Resources, LLC (“*NextEra Energy Resources*”), a Delaware limited liability company, proposes to perform substantial upgrades to its wind energy facility, titled “Story Wind Energy Center” in Story County, Iowa. The Story County Wind Energy Center is located in Story County, Iowa. The project will include upgrades to each of the existing 100 wind turbines, totaling 150 megawatts (12 MW uprate).

As illustrated throughout this application, Story County Wind Power, LLC has been diligent in intent to update the existing facility in a manner which meets the requirements of Chapter 9: Wind Energy Conversion Property within the Story County Wind Ordinance. The proposed upgrades to the wind energy center in Story County do not involve changes to the transmission line, access roads, tower foundations or towers. Story County Wind, LLC proposes to construct one temporary MET tower and switch out old and obsolete blade and generator technology with new blade and generator technology on all existing wind turbines that currently comprise the facility. No new wind turbine generator facilities are proposed. Upon completion of upgrades to the 100 turbine facility will continue to have a reported generating capacity equal to approximately 150 MW. The proposed new temporary MET tower will not add to the generating capacity of the facility.

Upon completing Conceptual Review, Story County Staff determined in accordance with Chapter 90 Section 90.07 Amendments and Modifications that the above detailed proposed Scope of Work was deemed a Major Modification and thus Story County Wind, LLC was instructed to seek a new Conditional Use Permit through application as defined in Chapter 90. Story County Wind, LLC understands new conditions may be imposed by the Board of Adjustment, but Story County Wind, LLC retains the right to reject such new conditions by withdrawing the request for modifications and proceeding under the terms and conditions of the original permit.

Story County Wind, LLC will comply in good faith with the general and specific standards and requirements for conditional uses as described in the Code of Ordinances for *Story County, Iowa Adopted May 29, 2018*. Further, Story County Wind, LLC respectfully submits all required CUP documentation in conformance with Chapter 90, Section 90.08 Section 6 Supplemental Standards for Approval of a Conditional Use Permit for Wind Energy Conversion Systems, a Statement for Standards for Approval of a Conditional Use Permit in compliance with Chapter 90, Section 90.04 Standards for Approval of a Conditional Use Permit, and an Application to Vary in compliance with Chapter 92: Land Development Regulations: Administration, Section 92.03 (D) (1) Variances. Story County Wind, LLC understands in deciding whether to grant a variance request, the Story County Board of Adjustment shall consider all required legal principles in its pursuit of findings of fact.

Story County Wind, LLC respectfully requests the Story County Board of Adjustment issue approvals for both its request for Application for a new Conditional Use Permit as well as an Application to Vary after consideration of the information provided herein and, after making affirmative findings of fact on each and all of the standards for approval of a new CUP and a Variance in addition finding that Story County Wind, LLC has made a genuine effort to improve its existing wind energy facilities while remaining in compliance with the regulations.

Project Developer Contact:

JEFFREY BRYCE
Story County Wind, LLC
NextEra Energy Resources, LLC
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II. PROPOSED UPGRADES TO WIND ENERGY SYSTEM | Conditional Use Requirements

Story County Wind, LLC 's proposed upgrades to its existing wind energy system will adhere to Conditional Use Permit requirements, and Application for Variance as outlined in *Chapters 9, 90 and 92 of the Code of Ordinances for Story County, Iowa Adopted May 29, 2018*.

1) APPLICANT and PROPERTY IDENTIFICATION

Project Developer:

Story County Wind, LLC
700 Universe Boulevard
Juno Beach, Florida 33408

On behalf of the listed participating landowners, the application is submitted by Story County Wind, LLC, a limited liability company organized under the laws of Delaware to own and operate the proposed wind farm. Story County Wind, LLC is a wholly-owned subsidiary of NextEra Energy Resources, LLC ("*NextEra Energy Resources*") that in turn is a wholly-owned subsidiary of NextEra Energy, Inc. *NextEra Energy Resources* is North America's largest producer of wind energy with 120 wind facilities in operation throughout the United States and Canada, totaling more than 13,528 net MW of wind power.

Story County Wind Energy Center Location: Legal Description of Property

Story County, Iowa

Legal Description of properties included in Story County Wind, LLC Application for Conditional Use Permit

All of parts of the following sections are located within the perimeter of the area for which a conditional use permit is sought:

Sections 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 22, 23, 25, 26, 27, 35 and 36 of Township 84, Range 21:

Sections 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 of Township 85, Range 21;

Sections 24 and 25 of Township 85, Range 22;

All in Story County, Iowa;

The following property located in Marshall County is within 1,320 feet of the Project and is shown for informational purposes:

Sections 30 and 31 of Township 84, Range 20 in Marshall County, IA

See Parcel List located in **Appendix A**

2) PROJECT DESCRIPTION

Overall Project Scope

Story County Wind, LLC (700 Universe Blvd. Juno Beach, FL 33408) is proposing major modifications of components of its existing wind energy conversion facilities in Story County (IA) permitted by Story County IA CUP0407 in 2009. These overhaul maintenance activities include; replacement of rotors, gear boxes, and generators on 100 existing and operational GE1.5 MW, 77m rotor diameter machines with modern equipment as follows: 50 existing machines will get upgraded to GE1.62MW machines with 91 rotor

diameter with 80m hub height (262 feet). The other 50 existing machines will also be upgraded to 50 GE1.62MW machines with 87m rotor diameter machines and 80m hub height (262 feet). All 100 towers will continue to have hub heights of 80 meters (262.4 feet). Therefore tip height for the 50GE1.62MW 91 RD machines will be 412 feet and tip height of the 50 GE1.62MW 87 RD machines will be 405 feet. The wind turbines and towers are rated to withstand 110 mph sustained winds and ice as extreme climactic conditions.

The 80M XHD Tall Tower, a temporary MET mast (meteorological testing tower) is proposed for project power performance testing. The tower will be erected to a height of 81.3 m AGL (266'7") equipped with seven (7) sensors including a primary anemometer, control anemometer, wind vane (2), barometer, temperature/RH Sensor, and Vertical Anemometer. The top sensor level is at 80 meters which is at or near the hub height of modern wind turbines. Meteorological data will be logged at frequent intervals (e.g. every ten minutes) for at least one year and preferably two or more..

The tower components will be delivered to the site by ¾ ton pickup truck. Technicians erect the tower utilizing a winch and ginpole. Erection of the tower generally takes one to three days to install and calibrate. The tower will be placed on private easement in order conduct power performance testing (measure the on-site wind resource, power generation, and compare with modelled data for the repowering). The MET is self-contained, battery operated, and utilizes cellular communication. No additional utilities are required. The FAA has made a determination of no hazard and issued its lighting and marking plan for the MET tower and these documents are included in Appendix D.

The Story County Wind Energy Center covers a 22.3 mile footprint. All associated facilities i.e. underground 34.5 kV collection lines (consisting of approximately 41 miles of buried electric and fiber optic cable), collection substation, Alliant Energy Switchyard (inside a 500' x 800' chain link fenced area), WTG access roads, transmission line (Alliant Energy), interconnection, Operations and Maintenance Facility (a 70' x 160' metal fabricated building) and site boundary will remain unchanged.

EXISTING PLANT	WTG	TURBINES	ROTOR DIAM	PLANT CAPACITY
2009 COD	1.5 MW	100	77	150
REPOWERED PLANT	WTG	TURBINES	ROTOR DIAM	PLANT CAPACITY
2020 COD	1.62 MW	50	91	150/162
	1.62 MW	50	87	

The project will also include a laydown area of approximately 7 acres of leased agricultural land that will be graded and graveled and used as a staging area for large equipment deliveries and construction trailers to support the proposed scope of work. The land will be restored to its original agricultural use when construction is completed. To minimize impacts, Story County Wind, LLC will use a portion of the same parcel used for the original laydown yard.

The overhaul maintenance process consists of three phases as follows:

- I. Phase I will involve a preparation period to include: conducting analysis of existing road conditions; roads improvements as required; establishment of staging 'laydown yard' area for maintenance work trailers, and new and retired equipment.
- II. Phase II will include on-site removal of existing rotors, gear boxes, and generators; delivery of new components, installation of new components; and transfer of all retired components off-site.

- III. Phase III concludes the overhaul maintenance process with site reclamation; involving construction area clean up, regrade, revegetation, and all necessary road improvements restoring all areas to conditions prior to commencement of overhaul maintenance activities.

New components will increase operational efficiency, extend operational lifecycle, and bolster established economic development activities with participating landowners, and community partners.

Benefits of Repowering a Wind Project

- Improved equipment performance: Each turbine will receive a new rotor, gearbox, and generator improving the efficiency of the turbine
- Extended landowner lease payments: NextEra Energy Resources has made \$5.1 million in annual landowner lease payments since 2005 and will continue to pay landowners for their participation in the project over an extended period
- Extended property tax benefits: As of 2017, NextEra Energy Resources projects contributed more than \$12.1 million in property tax benefits annually and will continue to help Iowa communities gain tax revenue from its operating assets over the extended life of the asset.

The Repowering Process

Preparation Period:

- Radius improvements
- Road upgrades to support component delivery
- Analysis of current turbine sites
- Establishing laydown areas for staging and storage of equipment

Component Swap:

- Remove existing components
- Delivery of new components
- Installation of new components
- Existing components transferred off-site

Reclamation Stage:

- Clean-up
- Regrading
- Maintenance

Approximately 120 construction workers will proudly be supported during proposed upgrade activities of the Story County Wind Energy Center. Local businesses, including those who participate in providing construction materials, housing, food, recreation, and day to day necessities will directly benefit from this temporary increase in personnel.

Construction Schedule

NextEra Energy Resources' experience in the development and construction management of over 120 wind farms throughout North America has resulted in some of the best-in-class project management in the industry. Assuming all permits are issued, the below table depicts an anticipated schedule outlining major Endeavor Wind Energy Center milestones.

Story County Wind Energy Center Milestones	
Site Preparation	JULY 2019
EPC Mobilize/Turbine Delivery Commencement	JULY 2019
Commercial Operation Date	NOV 2019

Construction Project Valuation

The projected capital cost of the project is \$122,000,000.00

Wind Turbine Structures and Meteorological Tower, Color and Finish

Existing wind turbine structures for Story County Wind, LLC wind turbines are self-supporting tubular towers, and are of a non-reflective neutral white color. No logos or advertisements are affixed on these structures. Each turbine is marked with a visible identification number located no higher than fifteen (15) feet above ground level. The white color and surface treatment of the wind turbine generators and supporting structures to the greatest extent possible minimize disruption of the natural characteristics of the site. New blades will also be of a non-reflective neutral white color.

A temporary MET mast is proposed in order conduct power performance testing (measure the on-site wind resource, power generation, and compare with modelled data for the repowering). Wind speed data will be logged at frequent intervals (e.g. every ten minutes) for at least one year and preferably two or more.

Meteorological Tower Configuration

Story County Wind, LLC has proposed the 80M XHD Tall Tower, a temporary MET mast (meteorological testing tower) for project power performance testing. Made of strong steel tube construction, sections joints are bolted for greater load-bearing capacity and anchored to the ground by a reinforced steel base plate (a concrete foundation is not required), bright yellow guy wire guards, and grounding kit. The tower color and finish will be FAA-compliant industrial paint and equipped with FAA-compliant obstruction lighting. The tower's total footprint will comprise three 55 m (180.4 feet) anchor radii.

Road Use Agreement

Story County Wind, LLC will negotiate a Roads Use Agreement with Story County to include all terms acceptable to both parties as they relate to preparation, use, maintenance, and restoration of agreed upon roads and structures during decommissioning and construction activities, including dust control measures. All required highway permits including; work in right of way permits, driveway access permits, 911-EMS address permits, and radius improvement permits will be submitted for approval by the Story County Roads Engineer along with a final copy of the Roads Use Agreement, Delivery Flow Plan (haul route), Crane Path Map, and Construction Safety Signage Map for approval by the Story County Commission.

Safety

Wind Turbines

Story County Wind, LLC has taken multiple steps to ensure safety is designed into proposed repowering activities and ongoing operations. With respect to wind turbine safety and the requirements of this ordinance:

- **Wiring:** No aspect of the proposed work will impact existing underground wiring between wind turbines and the C-WECS substation; this will remain underground. In the unlikely event it is necessary to place an overhead line during repowering, Story County Wind, LLC will apply to the Board of Adjustment for Conditional Approval.
- **Climbing prevention:** The external surfaces of the wind towers are smooth, and there is no means with which to climb the tower except on the inside of the tower.
- **Turbine access doors:** access inside the tower is through a door at ground level and that door is locked at all times except during maintenance activities.
- **Warning signage:** Wind turbines will continue to be marked on wind turbine towers, electrical equipment, and C-WECS entrances. See Appendix L.
- **Professional Standards:** BARR has completed a Wind Turbine Foundation Evaluation Report and results from their analysis confirm the Story County Wind, LLC foundations are suitable for repower. See Appendix D.
- **Electrical Codes and Standards:** Story County Wind, LLC will comply with the National Electrical Safety Code (NESC) or ANSI Standard C2 which is a United States standard of the safe installation, operation, and maintenance of electric power and communication utility systems including power substations, power and communication overhead lines, and power and communication underground lines.
- **Signal Interference:** After a 45-day review period, the National Telecommunications Information Administration (NTIA) has indicated no signal interference issues with the proposed repowering activities. See Appendix D.
- **FAA:** The FAA has issued Determinations of No Hazard for the repowered wind turbines. See Appendix D.

Met Tower

Story County Wind, LLC has taken multiple steps to ensure safety is designed into proposed repowering activities and ongoing operations. With respect to MET tower safety and the requirements of this ordinance:

- **Wiring:** The MET is self-contained, low-voltage (24V) solar and battery operated, utilizes cellular communication, and equipped with a grounding kit. No additional utilities are required.
- **Climbing prevention:** Bright yellow reflective guy wire guards (sleeves) extend a minimum of 8' upward from anchored guy wires surrounded by secured cattle fencing at each of three anchor points; there is no means with which to climb the tower except on the inside of the tower. See Appendix L.
- **Warning signage:** tower is low voltage at 24V (solar powered and battery operated) and no signage is required.
- **Professional Standards:** Plans for the NRG 80M XHD Tall Tower have been stamped by a licensed Engineer in the State of Iowa. See Appendix D.
- **Electrical Codes and Standards:** NRG 80M XHD Tall Tower is UL listed.
- **Signal Interference:** After a 45-day review period, the National Telecommunications Information Administration (NTIA) has indicated no signal interference issues with the proposed repowering activities. See Appendix D.
- **FAA:** The FAA has issued Determinations of No Hazard for the repowered NRG 80M XHD Tall Tower. See Appendix D.

Additional Safety Features

The NRG 80m XHD TallTower is a highly versatile meteorological tower designed specifically for wind resource measurements. It is built to withstand heavy ice and wind loads, this tower meets the applicable sections of ANSI/TIA-222-G.

The NRG 80m XHD TallTower has FAA-compliant industrial paint, guy guards, marker balls, and obstruction lighting and monitoring systems ensure that the tower complies with visibility requirements. In conjunction with lighting, painted towers meet the requirements of FAA AC 70/7460-1K. The paint color used for obstruction marking complies with Federal Standard FED-STD-595 and passes ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test.

Corporate Safety

Our vision for NextEra Energy, Inc. corporate safety is to establish and promote a safety culture based on the principle that ZERO injuries is the only acceptable target. We will provide support for business unit activities that clearly identify expectations for all levels of NextEra Energy, Inc. employees, and establish agreed upon consequences for exceeding, meeting or failing to meet those expectations. We expect each employee to work safely in order to return home at the end of the day, injury free.

Waste Disposal

Story County Wind, LLC will continue to ensure solid and hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, will be removed from the site in a time period as established by the Story County Health Department and disposed of in accordance with all applicable local, State and Federal regulations. The Story County Wind Energy Center will continue to coordinate with the IDNR to provide Tier II Emergency and Hazardous Chemical Inventory. In addition, Story County Wind, LLC will coordinate with NextEra Energy Resources Power Generation Division (PGD) Environmental Group to maintain with timely reviews and updates to its on-site Spill Prevention, Control, and Countermeasure Plan (SPCC). Recent copies of each report and plan can be found in Appendix L.

3) PROCEDURE

Story County Wind, LLC acknowledges and understands the process practiced by the Story County Board of Adjustment when reviewing an Application for Conditional Use Permit and Application to Vary per Chapter 92 Land Development Regulations: Administration.

The land for which the Conditional Use Permit is applied has continued to be zoned Agricultural within the A-1 District. Pursuant to Section 20.90.6 of the Story County Land Development Regulations conditional uses of land in Agricultural Districts continue to be permitted for Commercial Wind Energy Conversion Systems (C-WECS).

Wind energy centers are compatible with and promote continuance of agriculture. Cattle can graze and crops can be grown right up to the edge of the access roads and towers. While the area proposed for the conditional use is relatively large (nearly 14,300 acres), the location of the wind turbines, access roads, substation and other improvements will not change and continue to occupy merely 105 acres within the permitted area. After overhaul maintenance is complete, the project will not require extensive ongoing construction work. Disruption for the landowner will be minimal and area properties will continue as normal.

The project requires few infrastructure improvements on an ongoing basis outside the proposed scope of work. All towers were redesigned to minimize aesthetic impacts. Once repowering activities are complete, the towers will remain tubular with no guy wires, painted an off-white color with matte finish that absorbs ambient light and helps the tower blend into the landscape. As an added benefit, by staying with the tubular tower design the farm will not overtly attract birds as compared to lattice towers which provide perches for migrating birds and raptors.

4) SITE PLAN

Story County Wind, LLC site plans ("site plans") can be found in **Appendix B**. The site plans include maps showing the physical features and land uses of the project area; the location of property lines, wind turbines, electrical wires, interconnection points with the electrical grid, and all related accessory structures.

5) CONSENT DOCUMENTS

Copies of new redacted landowner consent agreements can be found in **Appendix C**.

6) CERTIFICATIONS

Story County Wind, LLC will comply with all applicable federal, state, and local laws and regulations and will obtain all required federal, state, and local approvals, licenses, permits or variances for the proposed wind project prior to or in tandem with mobilization of proposed/associated construction activities. *NextEra Energy Resources* performs a systematic evaluation of its wind projects to ensure they are sited in an environmentally responsible manner and in compliance with all applicable local, state and federal laws and regulations. The following list represents permits, certifications, and approvals associated with proposed upgrade activities. Copies of listed permits, certifications and approvals can be found in Appendix D:

ENTITY / APPLICATION	DESCRIPTION	STATUS
Blattner	SWPPP	In process
Federal Aviation Administration (FAA)	Approval / Permit/Lighting and Marking Plans	Complete
Federal Communication Commission (FCC)	NTIA Letter; Beam Path Study	Complete
Iowa Department of Transportation (IADOT)	ROW Permits & Agreements	In process
Iowa Utilities Board (IUB)	Order Issuing Certificate	Complete
Army Corps of Engineers	Nationwide Permit	To be determined
Engineer's Certification	Load Analysis foundation	Complete
Engineer's Certification	MET Tower Design	In process

7) ACOUSTICS ANALYSIS

A copy of the Sound Level Assessment Report can be found in **Appendix E**.

8) SHADOW FLICKER STUDY

A copy of the Shadow Flicker Modeling Report can be found in **Appendix F**. A shadow flicker mitigation plan can be found in **Appendix G**.

9) SETBACK ANALYSES

All setback analyses exhibits including zoning non-conformities can be found in **Appendix H**. The Minimum Ground Clearance Table shows 113' ground clearance for the 91m blades and 120' clearance for the 87m blades. Current Story County setbacks are listed below.

STORY COUNTY CURRENT SETBACKS	STORY COUNTY ORDINANCE 192
MINIMUM GROUND CLEARANCE	NO LESS THAN 75'
STRUCTURES	NO LESS THAN THE GRETER OF (a) TWO (2) TIMES ITS TOTAL HEIGHT OR (b) 1,000'
PROPERTY LINES	AT NO TIME SHALL ANY PART OF THE WIND TURBINE OR MET TOWER OVERHANG AN ADJOINING PROPERTY WITHOUT EASEMENTS FROM THAT PROPERTY OWNER
PUBLIC RIGHT OF WAY	DISTANCE EQUAL TO 1.1 TIMES TOTAL HEIGHT
POWER LINES	DISTANCE EQUAL TO 1.1 TIMES TOTAL HEIGHT
COMUNICATION/ELECTRICAL LINES	DISTANCE EQUAL TO 1.1 TIMES TOTAL HEIGHT
NOISE	NOT TO EXCEED 60 dBA AT ANY TIME WHEN MEASURED AT THE DWELLING/SCHOOL/CHURCH** 5 dBA ambient
NOISE WAIVER	GRANTED BY BOA WITH WRITTEN CONSENT FROM THE AFFECTED PROPERTY OWNER AND A PERMANENT NOISE IMPACT EASEMENT SHALL BE RECORDED AT THE RECORDERS OFFICE
SHADOW FLICKER	*A GREATER DISTANCE MAY BE REQUIRED THAT 1,250' TO MINIMIZE SHADOW FLICKER

10) DECOMMISSIONING PLAN

A copy of the Decommissioning Plan can be found in **Appendix I**.

11) EXISTING RESOURCES INVENTORY

Copies of the project Cultural Resource Review, Wildlife Conservation Strategy, and shapefiles indicating the locations of all naturally occurring resources on a property and showing the relationship of the subject property to naturally occurring resources existing within 1,000 ' of the site can be found in **Appendix J**.

12) LOCATION OF KNOWN TOWERS

A copy of the map showing the location of all known communications towers/facilities within two miles of the proposed C-WECS County can be found in **Appendix K**.

III. ADDITIONAL INFORMATION

1) STANDARDS FOR APPROVAL FOR CONDITIONAL USES

Per Section 90.04 Standards for Approval the Story County Board of Adjustment shall review the proposed development for conformance to the following development criteria:

- A. Compatibility. The proposed buildings or use shall be constructed, arranged and operated so as to be compatible with the character of the zoning district and immediate vicinity, and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations. The proposed development shall not be unsightly, obnoxious nor offensive in appearance to abutting or nearby properties.**

The Application clearly demonstrates that the proposed scope of work for Major Modifications to the existing wind farm will continue to be compatible with other agricultural uses in rural Story County. The placement of the turbines has not impeded the use of adjacent property for agricultural purposes nor will replacing blades and nacelles and gearboxes. Crops can be grown and livestock can graze right up to the base of the wind turbines and access roads. The land can still be used for the purpose for which it is currently zoned, and the presence of wind turbines will not impede the development of other uses permitted in the agricultural district. Wind turbines will continue to blend with the landscape.

- B. Transition. The development shall provide for a suitable transition, and if necessary, buffer between the proposed buildings or use and surrounding properties.**

The proposed major modification will optimize an aging commercial wind energy facility. In doing so, it will predominantly be in conformance with minimum siting requirements in order to reduce or eliminate risk or harm to people, property, and the well-being of the community at-large. All modifications to existing wind turbines will meet minimum setbacks from structures, property lines, public rights away, communication and electrical lines, and both noise, and shadow flicker limits unless written permission is obtained from the impacted property owner for exceedance of minimum and maximum requirements.

- C. Traffic. The development shall provide for adequate ingress and egress, with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control, and emergency access.**

During construction, as a means to improve delivery flow and minimize loads in and out of the project area, blades and nacelles and gearboxes will be staged at the base of the wind turbine instead of the laydown yard. This is the major benefit of repowering. No new access roads are required and equipment specified for each turbine can be moved to its specific location one time on the deliver path. Once equipment is offloaded, the truck/tractor-trailer will evacuate the project site. All work will be completed sufficiently away from public roads on private property accessed by the wind energy center access roads. The on-site Construction Management Team will post traffic control signage and accompany each delivery in and out of the project area, monitoring vehicular and pedestrian safety.

- D. Parking and Loading.** The development shall provide all off-street parking and loading areas as required by the Ordinance, and adequate service entrances and areas. Appropriate screening shall be provided around parking and service areas to minimize visual impacts, glare from headlights, noise, fumes or other detrimental impacts.

There will be little to no on-street parking with the proposed repowering activities nor anytime thereafter during the operation and maintenance phase of the project. Construction vehicles will part at the laydown area or at the turbine sites themselves, as will service vehicles. The Laydown Area is truly the hub of the project, as it adjoins public roads with adequate service entrances and exits for construction and other vehicles. If the Board of Adjustment should require temporary screening for a period of 5 months, the Applicant will comply.

- E. Signs and Lighting.** Permitted signage shall be in accordance with the applicable district regulations and shall be compatible with the immediate vicinity. Exterior lighting, if provided, shall be with consideration given to glare, traffic safety and compatibility with property in the immediate vicinity and shall comply with the requirements of Section [88.09](#), Site Lighting.

Story Wind Energy Center, LLC does not typically place signage or lighting at its wind energy centers and associated facilities unless local authorities deem it advisable. O&M facility security lighting will remain unchanged and directed in a downward cast to minimize light pollution and preserve the rural nighttime sky yet simultaneously provide adequate lighting should the Operations and Maintenance facility or one of the wind turbine sites require after dark maintenance or monitoring. Any such lighting will continue to comply with local requirements.

- F. Environmental Protection.** The development shall be planned and operated in such a manner that will safeguard environmental and visual resources. The development shall not generate excessive noise, vibration, dust, smoke, fumes, odor, glare, groundwater pollution or other undesirable, hazardous or nuisance conditions, including weeds.

Story County Wind, LLC has been monitoring environmental and visual resources at its exiting wind energy facility for ten years. Initial turbine locations were carefully selected and designed to ensure compatibility with other area property users, wildlife, wetlands, floodplains, cultural resources and the facility is by design a tribute to the environment, harvesting steady, clean, local wind energy for conversion into clean power for communities in Iowa. Optimized for energy efficiency, the repowered facility will comply with applicable noise standards and will not generate excessive vibration. No dust, smoke, fumes, glare, ground water pollution or other undesirable nuisances or odors are emitted from the proposed facility.

As further provided in Chapter 90.04, the Board of Adjustment shall approve this Application if the foregoing development criteria are met, unless it concludes that if completed as proposed there is a strong probability the development will:

- A. Not adequately safeguard the health, safety and general welfare of persons residing or working in adjoining or surrounding property.**

Story County Wind, LLC has undergone careful evaluation of the Story County Development Regulations, conducted technical engineering reviews, environmental studies, cultural studies, noise and shadow flicker analyses, FAA evaluations for potential airspace obstructions in order to

ensure safety and general welfare of persons residing or working in the adjoining or surrounding property.

B. Impair an adequate supply (including quality) of light and air to surrounding property.

Wind Turbines occupy very little space, cast no overhead canopy and spacing between machines more than adequately ensures adequate supply of light or air to surround property owners.

C. Unduly increase congestion in the roads, or the hazard from fire, flood or similar dangers.

There will be far less traffic congestion during proposed repowering activities than was experienced during construction. Equipment deliveries to each wind turbine location will occur systematically and the number of truck and tractor trailer trips on the haul route will be cut in half as they drop equipment directly at the base of each turbine rather than the laydown yard for staging during the 5 month construction phase. Once operational, the facility will be maintained as normal with 6-8 workers performing scheduled maintenance on a weekly and semi-annual basis. Facilities do not pose any danger of fire, flood, etc. under normal operating conditions.

D. Diminish or impair established property values on adjoining or surrounding property.

The existing wind farm has not posed any harm to people or property. Proposed repowering activities will also not pose any harm to people or property. Land values of adjoining properties in adjacent jurisdiction in which we continue to manage and monitor company wind assets (Cerro Gordo and Hancock County) have not been adversely affected by the presence of wind turbines being located in adjoining property there is no reason to think that land values will be adversely impacted as a result of this repower.

E. Not be in accord with the intent, purpose and spirit of the Ordinance or the Cornerstone to Capstone (C2C) Comprehensive Plan.

The Story County Land Development Regulations as well as the Cornerstone to Capstone (C2C) Comprehensive Plan and Implementation Matrix provide significant detail with regard to the requirements, conditions for approval of a wind energy conversion facility, ongoing construction and maintenance of said facility, and ensuring current and future land use planning, utility infrastructure planning, and natural resource planning with respect to renewable energy utility development can not only occur and but that it also protects and is compatible with agricultural land uses, soils, public health, and rural character. That these regulations exist and continue to be updated with renewable energy resources identified is proof of the intent, purpose and spirit of both documents and Story County Wind, LLC will fully comply with that intent, purpose, and spirit.

For the reasons set forth above, all of the criteria are satisfied, and Story County Wind, LLC respectfully requests that the Story County Board of Adjustments approve this Application for Conditional Use Permit as stated herein.

Respectfully Submitted,

Jeffrey Bryce
Story County Wind, LLC
700 Universe Blvd
Juno Beach, FL 33408

2) STANDARDS FOR APPROVAL OF A VARIANCE

In deciding whether to grant a variance request, the Board of Adjustment shall consider all the following legal principles. All legal principles shall be satisfied in order for the Board of Adjustment to grant a variance.

a. Finding of unnecessary hardship:

- (i) *the land in question cannot yield a reasonable return if used only for a purpose allowed in that zone;*
- (ii) *the plight of the owner is due to unique circumstances and not to general conditions in the neighborhood which may reflect the unreasonableness of the Ordinance itself;*
- (iii) *the use to be authorized by the variance will not alter the essential character of the locality.*

b. Granting the variance will not be contrary to the public interest.

c. The spirit and intent of the Story County Cornerstone to Capstone (C2C) Comprehensive Plan and Story County Land Development Regulations are protected.

Story County Wind, LLC acknowledges the fact that Story County's development regulations and zoning standards set forth in *Chapter 90, Section 90.08 Section 6 Supplemental Standards for Approval of a Conditional Use Permit for Wind Energy Conversion Systems* generally apply equally to all properties, yet in this instance Story County Wind, LLC is submitting this request to vary from aforementioned standards due to unnecessary hardship on a genuine effort to improve existing wind energy facilities while remaining in compliance with the regulations.

Because *Chapter 92: Land Development Regulations: Administration, Section 92.03 (D) (1) Variances* authorizes the Story County Board of Adjustment to grant a variance from the rules set forth in *Chapter 90, Section 90.08 Section 6 Supplemental Standards for Approval of a Conditional Use Permit for Wind Energy Conversion Systems* in limited circumstances, Story County Wind, LLC requests the Story County Board of Adjustment consider the following in granting an application to vary after making affirmative findings of fact on each and all of the following criteria:

Requirement a (i):

The land in question cannot yield a reasonable return if used only for a purpose allowed in that zone.

As recent as April 9, 2019, the Des Moines Register reported that Iowa's farmland assessments have declined as much as 17% below a 2013 high in Iowa. Iowa uses a productivity formula to determine farmland assessments, factoring in data such as average prices for corn, soybeans and other farm products over five years, yields at harvest, government payments and expenses. This as well as the decline of on-farm income by nearly 60% from 2013 through 2017 supports the argument that the land in questions will not likely yield a reasonable return if used only for the purpose of agriculture. As designed, Story County Wind, LLC will continue to work with all participating project landowners through repowering construction activities. Participating landowners have come to rely on the stability of wind farm lease payments (annual and predictable) when facing such uncertainty in the agricultural commodity markets.

Requirement a (ii):

The plight of the owner is due to unique circumstances and not to general conditions in the neighborhood which may reflect the unreasonableness of the Ordinance itself.

The existing plant was constructed with GE 1.5 WTGs and became operational in 2009. Story County Wind LLC has been both owner and operator of the wind energy facility since it became commercially operational. During the facility's short ten-year life-span sourcing components for maintenance and repair as necessary has become more difficult. Unfortunately, GE 1.5 MW technology and components for replacement becoming obsolete, as the manufacturer strives to produce optimized components and technologies. Story County Wind, LLC aims to optimize this plant with current and readily available technology thereby extending the life, longevity, performance, and economic benefits to landowners and Story County for years to come.

The existing but obsolete GE blades measure at a 77m rotor diameter. Proposed GE blades consistent with modern WTG technology measure at 91 and 87 meter rotor diameter; these increases in blade length while optimizing energy production, create special circumstances peculiar to the structure that impede compliance with Story County's *Chapter 90, Section 90.08 Section 6 Supplemental Standards for Approval of a Conditional Use Permit for Wind Energy Conversion Systems (i.e. setback requirements)*. See *Setback Analysis Exhibits (WTG 01-WTG 100)*.

Requirement a (iii):

The use to be authorized by the variance will not alter the essential character of the locality.

The Application clearly demonstrates that the proposed scope of work for Major Modifications to the existing wind farm will continue to be compatible with other agricultural uses in rural Story County. The placement of the turbines has not impeded the use of adjacent property for agricultural purposes nor will blade replacement and nacelles and gearboxes. Crops can be grown and livestock can graze right up to the base of the wind turbines and access roads. The land can still be used for the purpose for which it is currently zoned, and the presence of wind turbines will not impede the development of other uses permitted in the agricultural district. Wind turbines will continue to blend with the landscape.

Requirement (b)

Granting the variance will not be contrary to the public interest.

An impressive number of citizens joined together in partnership to bring one of the fastest growing sources of energy to Story County in 2009 – clean, efficient, renewable, wind energy. These citizens understood the opportunities wind energy can offer a community at-large who welcome it: decades of steady, reliable diversified on-farm income to a large group of landowners of all sizes; a material infusion of new property tax revenues to the county; the creation of good paying-jobs; an overall boost to the local economy; and the build-out of a community asset which will be a local source of homegrown pride that comes with hosting a renewable energy center. It is this pride at a local level that has propelled the State of Iowa to climb to a top tier status nationally and renowned leader in renewable energy development. Permitting the application to vary 7 of 100 machines will not be contrary to the public interest. (see Setback Analysis Exhibits for setbacks requiring a variance).

Requirement (c)

The spirit and intent of the Story County Cornerstone to Capstone (C2C) Comprehensive Plan and Story County Land Development Regulations are protected.

The Story County Land Development Regulations as well as the Cornerstone to Capstone (C2C) Comprehensive Plan and Implementation Matrix provide significant detail with regard to the requirements, conditions for approval of a wind energy conversion facility, ongoing construction and maintenance of said facility, and ensuring current and future land use planning, utility infrastructure planning, and natural resource planning with respect to renewable energy utility development can not only occur and but that it also protects and is compatible with agricultural land uses, soils, public health, and rural character. That these regulations exist and continue to be updated with renewable energy resources identified is proof of the intent, purpose and spirit of both documents and Story County Wind, LLC will fully comply with that intent, purpose, and spirit.

For the reasons set forth above, all of the criteria are satisfied, and Story County Wind respectfully requests that the Story County Board of Adjustments approve this Application for Conditional Use Permit as stated herein.

Respectfully Submitted,

Jeffrey Bryce
Story County Wind, LLC
700 Universe Blvd
Juno Beach, FL 33408

13) SUPPLEMENTAL INFORMATION

A compendium of supplemental documentation can be found in **Appendix L**.

IV. CONCLUSION

This submission and referenced Appendices demonstrate Story County Wind, LLC's compliance with the intent of the *Story County Iowa Code of Ordinances for Story County, Iowa Adopted May 29, 2018*. Further, Story County Wind, LLC respectfully submits all required CUP documentation in conformance with *Chapter 90, Section 90.08 Section 6 Supplemental Standards for Approval of a Conditional Use Permit for Wind Energy Conversion Systems, a Statement for Standards for Approval of a Conditional Use Permit in compliance with Chapter 90, Section 90.04 Standards for Approval of a Conditional Use Permit, and an Application to Vary in compliance with Chapter 92: Land Development Regulations: Administration, Section 92.03 (D) (1) Variances*.

Upon approval of the new Application for a Conditional Use Permit and Application to Vary Story County Wind, LLC looks forward to the opportunity to perform necessary upgrades to its existing facilities in order to continue bringing economic benefits to project stakeholders and Story County for years to come.